INDIAN SECTION CRUISE AND CLEAN FILE NAME LIST

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This is a list of all Indian Ocean files in 'The Best CTD/Hydrographic Data' area of the Java OceanAtlas Suite site (https://joa.ucsd.edu/Data_homepage). Because we are always adding new files, it may be slightly out of date, but the intent is to update this list as needed. There are two principal lists here: (1) A data file list organized by WOCE line number, year, and cruise, and (2) a list of matched cruise segments. The latter are data from different years which cover the same portion of a section within one geographic domain.

All "cleaned" data were downloaded from the CCHDO (https://cchdo.ucsd.edu) and then subjected to these procedures: (1) Bottle data columns and headers were rectified to a specified set and order. (2) Duplicate bottles and bottles with little or no data from oxygen titrations or nutrient analyses were discarded. (3) Data which were quality coded bad or uncertain were eliminated. (4) Where there were multiple casts at a single station, the ones which comprised the most nearly complete profile were combined into a single vertical profile. (5) Transects were sorted with south-to-north or west-to-east left-right orientation. (6) Where it took several cruises to cover one very long transect, the data were combined. (7) Overlapping or off-transect data were eliminated. No measured data values were changed. In a few cases errors in station metadata such as position or depth to bottom were corrected.

PLEASE NOTE: The list of matched cruise segments appears at the end of this document.

CRUISES BY WOCE LINE NUMBER AND YEAR

See the top of page https://joa.ucsd.edu/indiandata for a master map showing WOCE line numbers.

Indian Ocean section nomenclature can be confusing. For example, the I03 zonal section connects to the I04W segment for complete boundary to boundary coverage; different occupations of the north end of I07N follow different tracks (and at least one has a split track in the north) and there multiple I10 tracks; the I08N section does not connect to a bathymetric boundary on its southern end; and the I08S segment connects to the I09N segment for complete Antarctica to Bangladesh coverage, with the I09S segment running from Antarctica to Australia. Also, some useful boundary-to-boundary Indian Ocean transects cover portions of multiple WOCE section IDs in a combination of zonal and meridional segments (for example, I05W_I04_I07C_I07N_1995 and I08N_I05E_1995. (Also note that the central portion of I05 was not covered in 1995.) In some of these cases, we include the same cruise both as a distinct line segment (e.g., "I05W_1995") and also as part of a complete boundary-to-boundary transect (e.g., "I05W_I04_I07C_I07N_1995").

In the list which follows, a ~~cross-out~~ means that after inspection and/or cleaning, a cruise listed at the CCHDO was deemed not a suitable match for the intentions/criteria of the clean data project, or the data were not available from the CCHDO. Tasks not yet completed are highlighted in grey.

Files with suffix "_hy1.csv" are in Exchange format (see https://cchdo.ucsd.edu/formats), which can be read by several data exploration applications and any application which can read .csv files. Files with ".joa" suffix are in Java OceanAtlas binary format, which can be read only by that application. NOTE: Java OceanAtlas can be used to export an Exchange format (_hy1.csv) file from any JOA binary (.joa) file.

"WOA" in a file name indicates a data set made from WOA files to as closely as feasible match the track of the WOCE line in question. We will make most of these later.

At this time the focus is on the bottle data files. Only a few cruises now have CTD data on line here. In the fullness of time, we intend that there should be a cleaned bottle file and a cleaned CTD file for each cruise, each in ascii/Exchange and JOA binary formats.

PLEASE NOTE: A list of matched cruise segments (for the matched segments area of the JOA Suite data site) appears at the end of this document.

I01/IR01

~~1993~~

~~1995a~~

1995
I01_1995_bot_clean.joa
I01_1995_bot_clean2_hy1.csv

1995b
I01W_1995b_bot_clean_edited_hy1.csv
I01W_1995b_bot_clean_edited.joa

~~1998~~

WOA

ISS2

1995
ISS2_1995_RedSeaTrack_bot_clean_limited_data.joa
ISS2_1995_RedSeaTrack_bot_clean_limited_data_hy1.csv
ISS2_1995_ArabianSeaTrack_bot_clean_limited_data.joa
ISS2_1995_ArabianSeaTrack_bot_clean_limited_data_hy1.csv

I02

1995
I02_1995_1996_bot_clean_edited_hy1.csv
I02_1995_1996_bot_clean_edited.joa

~~2000~~

WOA

I04W_I03

1976 (will need to be reconstructed from Jim's file ind.1976.AN.18S.joa)

1995
I04W_I03_1995_bot_clean3_hy1.csv
I04W_I03_1995_bot_clean3.joa

2003
I04W_I03_2003_bot_clean_hy1.csv
I04W_I03_2003_bot_clean.joa

WOA
I04W_I03_WOA05_in_mass_units_hy1.csv
I04W_I03_WOA05_in_mass_units.joa

I04

I04_1995_all_cruise_bot_clean.joa
I04_1995_all_cruise_bot_clean2_hy1.csv

I05

1987
I05_1987_bot_clean_sorted.joa
I05_1987_bot_clean_sorted_hy1.csv

~~1990~~

~~1993~~

~~1994~~

1995a
I05E_1995a_bot_clean_edited.joa
I05E_1995a_bot_clean_edited_hy1.csv

1995b
I05W_1995b_bot_clean.joa
I05W_1995b_bot_clean3_hy1.csv

~~1995_9~~

~~2000~~
~~I05_2000_bot_clean_hy1.csv~~

2002
I05_2002_bot_clean_hy1.csv

I05_2002_bot_clean_hy1.joa

2009
I05_2009_bot_clean.joa
I05_2009_bot_clean_hy1.csv

WOA

I05W_I04_I07C_I07N

1995
I05W_I04_I07C_I07N_1995_bot_clean.joa
I05W_I04_I07C_I07N_1995_bot_clean_hy1.csv

WOA

I06S

1993
I06S_1993_AntarcticaTo44S_bot_clean.sorted_hy1.csv
I06S_1993_AntarcticaTo44S_bot_clean.sorted.joa

1996
I06S_1996_bottle_clean_sorted.joa
I06S_1996_bottle_clean_hy1.csv

2008
I06S_2008_bottle_clean_sorted.joa
I06S_2008_bottle_clean_hy1.csv

2019
I06S_2019_bottle_clean_sorted.joa
I06S_2019_bottle_clean_hy1.csv

WOA

I07C/I07N

1995
I07C_I07N_1995_bot_clean_hy1.csv
I07C_I07N_1995_bot_clean.joa

2018
I07C_I07N_2018_bottle_clean.joa
I07C_I07N_2018_bottle_clean_hy1.csv

WOA

I07_complete (I07S_I07N)

2018_2019
I07_2018_2019_bottle_clean_hy1.csv
I07_2018_2019_bottle_clean.joa

WOA

I08N

1995a

I08N_1995a_bot_clean_sorted_hy1.csv
I08N_1995a_bot_clean_sorted.joa

1995b

I08N_1995b_bot_clean.joa
I08N_1995b_bot_clean2_hy1.csv

2019
I08N_2019_bottle_clean_edited.joa
I08N_2019_bottle_clean_edited_hy1.csv
I08N_2019_CTD_std_levels_only.joa

WOA

I08N_I05E

1995
I08N_I05E_1995a_bot_clean_sorted.joa
I08N_I05E_1995a_bot_clean_sorted_hy1.csv

I08S/I09N

1995
I08S_I09N_1995_bot_clean2.joa
I08S_I09N_1995_bot_clean2_hy1.csv

~~2003~~

2007
I08S_I09N_2007_bot_clean.joa
I08S_I09N_2007_bot_clean_hy1.csv

2016
I08S_I09N_2016_bot_clean_sorted.joa
I08S_I09N_2016_bot_clean_sorted_hy1.csv

WOA
WOA05_I8S_I9N_in_mass_units.joa

WOA05_I8S_I9N_in_mass_units_hy1.csv

I09S

1994
I09S_1994_bot_clean3.joa
I09S_1994_bot_clean3_hy1.csv

2004
I09S_2004_bot_clean.joa
I09S_2004_bot_clean_edited_hy1.csv

2012
I09S_2012_01_JAN_bot_clean.joa
I09S_2012_01_JAN_bot_clean2_hy1.csv

WOA

I10/IR06

~~1989~~

1992
I10_1992_bot_clean.joa
I10_1992_bot_clean2_hy1.csv

1995
I10_1995_bot_clean.joa
I10_1995_bot_clean_hy1.csv

1995_a
I10_IR06_1995a_bot_clean_edited_hy1.csv
I10_IR06_1995a_bot_clean_edited.joa

1995_b
I10_IR06_1995b_bot_clean_edited_hy1.csv
I10_IR06_1995b_bot_clean_edited.joa

2000
I10_2000_bot_clean.joa
I10_2000_bot_clean2_hy1.csv

~~2000_a~~

2015
(bottle file for https://cchdo.ucsd.edu/cruise/49NZ20151223 not yet available from the CCHDO. It might be worth chasing it down.)

WOA

FILE NAMES FOR MATCHED CRUISE SEGMENTS

These matched segments are data from different years which cover, as best as feasible, the same section or portion of a section. The sub-sections were designed to lie within one geographic domain, such as an ocean basin. (Complete, ocean-spanning matched sections, i.e. A02_1997 versus A02_2001, can be gleaned from the master cleaned cruise files elsewhere on the site.) The matched segments from the same line number and with the same name convention are the closest feasible matches to each other. For example, "A02_1994_bot_clean_east.joa" covers the same stretch of the northeastern Atlantic Ocean as does "A02_1997_bot_clean_east.joa", "A02_2001_bot_clean_sorted_east.joa", and "A02_2017_bot_clean_east.joa", in order to facilitate interannual comparisons in that part of the ocean, east of the mid-ocean ridge.

We also note that sometimes more than one section track crosses a given ocean subregion. These might be zonal and/or meridional line segments. One might, for example, usefully compare a plot of collective data from time period A from a given ocean subregion with a plot of collective data from time period B from the same subregion. Our master map (xxfile name or URLxx) shows which sub-sections from different WOCE line numbers lie within the same geographic domain. For example, part of the meridional A16 transect crosses the same basin as part of the zonal A10 transect (the Brazil Basin in this case) and so all the A16 "southcentral" and A10 "west" line segments are part of a Brazil Basin group, which we have termed the "West Central South Atlantic".

Note also that for any cruise segment available only in JOA binary format (suffix ".joa"), one can use the Java OceanAtlas "Export WOCE Exchange file" command (under the JOA "File" menu) to export and save an ascii, comma-delimited WOCE Exchange file (suffix "_hy1.csv"), which can then be used in any application which can read ascii, comma-delimited data (such as Ocean Data View, for example).

I03

I03_1995_bot_clean3_east.joa
I03_2003_bot_clean_east.joa

I03_1995_bot_clean3_central.joa
I03_2003_bot_clean_central.joa

I03_1995_bot_clean3_west.joa
I03_2003_bot_clean_west.joa

I05

I05_1987_bot_clean_eastof88E.joa
I05_2002_bot_clean_eastof88E.joa
I05_2009_bot_clean_eastof88E.joa

I05_1987_bot_clean_centraleast.joa
I05_2002_bot_clean_centraleast.joa
I05_2009_bot_clean_centraleast.joa

I05_1987_bot_clean_central.joa

I05_2002_bot_clean_central.joa
I05_2009_bot_clean_central.joa

I05_1987_bot_clean_west.joa
I05_2002_bot_clean_west.joa
I05_2009_bot_clean_west.joa

I06S

I06S_1996_bottle_clean_sorted_southof49S.joa
I06S_2008_bottle_clean_sorted_southof49S.joa
I06S_2019_bottle_clean_sorted_southof49S.joa

I06S_1996_bottle_clean_sorted_northof49S.joa
I06S_2008_bottle_clean_sorted_northof49S.joa
I06S_2019_bottle_clean_sorted_northof49S_incomplete.joa

I07N

I07N_1995_all_bottle_clean_south.joa
I07N_2018_bottle_clean_south.joa

I07N_1995_all_bottle_clean_northto15N.joa
I07N_2018_bottle_clean_northto15N.joa

I08S/I09N

5-segment breakdown

I08S_I09N_1995_Antarctic_far_south_Indian.joa
I08S_I09N_2016_Antarctic_far_south_Indian.joa

I08S_I09N_1995_central_far_south_Indian.joa
I08S_I09N_2016_central_far_south_Indian.joa

I08S_I09N_1995_southeast_Indian.joa
I08S_I09N_2016_southeast_Indian.joa

I08S_I09N_1995_corrected_east_central_Indian.joa
I08S_I09N_2016_east_central_Indian.joa

I08S_I09N_1995_corrected_east_north_Indian.joa
I08S_I09N_2016_east_north_Indian.joa

2-segment breakdown

I08S_I09N_1995_bot_clean_south_new.joa
I08S_I09N_2007_bot_south_new.joa
I08S_I09N_2016_bot_south_new.joa

I08S_I09N_1995_bot_clean_north_new.joa
I08S_I09N_2007_bot_north_new.joa
I08S_I09N_2016_bot_north_new.joa

I09S

I09S_1994_bot_clean3_south.joa
I09S_2012_01_JAN_bot_clean_south.joa

I09S_1994_bot_clean3_north.joa
I09S_2012_01_JAN_bot_clean_north.joa